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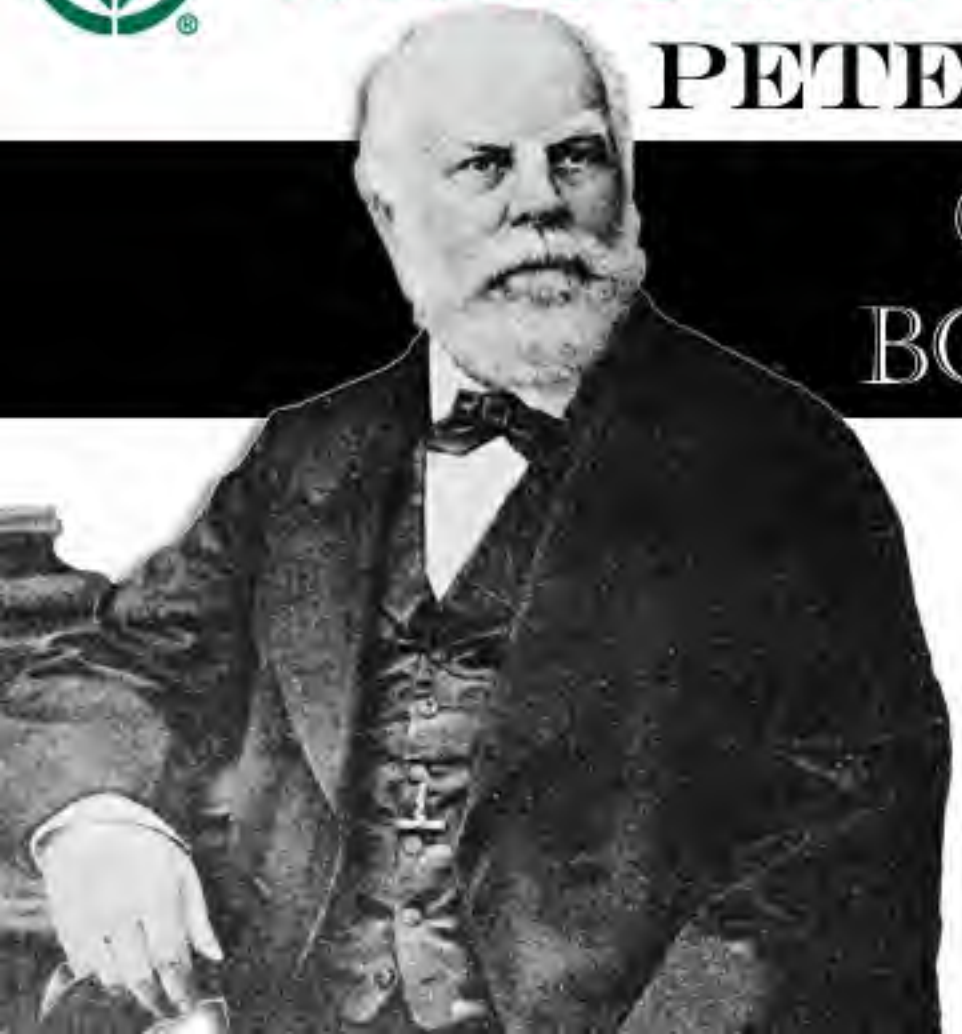


Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

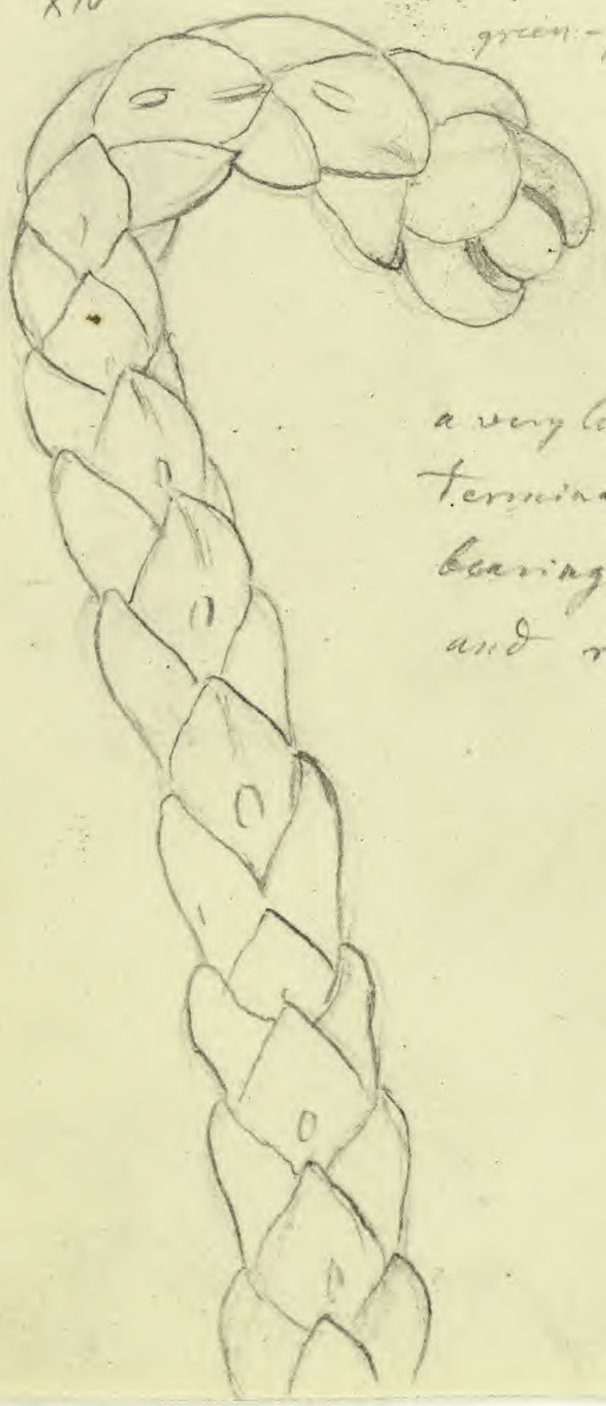
Juniperus prostrata Jan 22 1874

Head waters Yellowstone S C Carey 1873

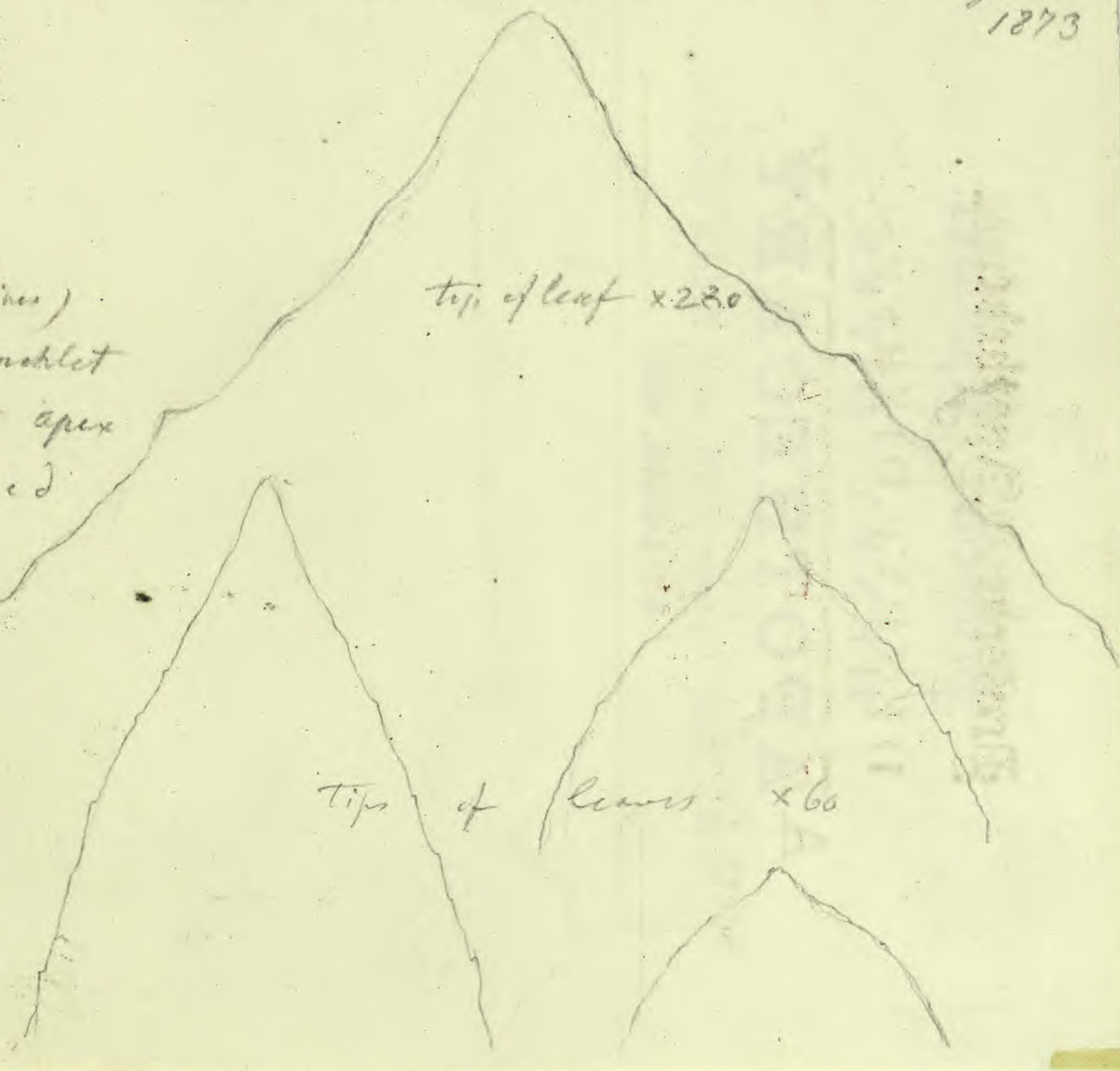
X10

green-purple.

purple



a very long (8 lines) terminal branchlet bearing ♀ at apex and recurved



tip of leaf x 220

Tips of leaves x 60

cm 0 1 2 3 4 5 6 7 8 9 10
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APOTHECARY,

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ST. LOUIS. MO,

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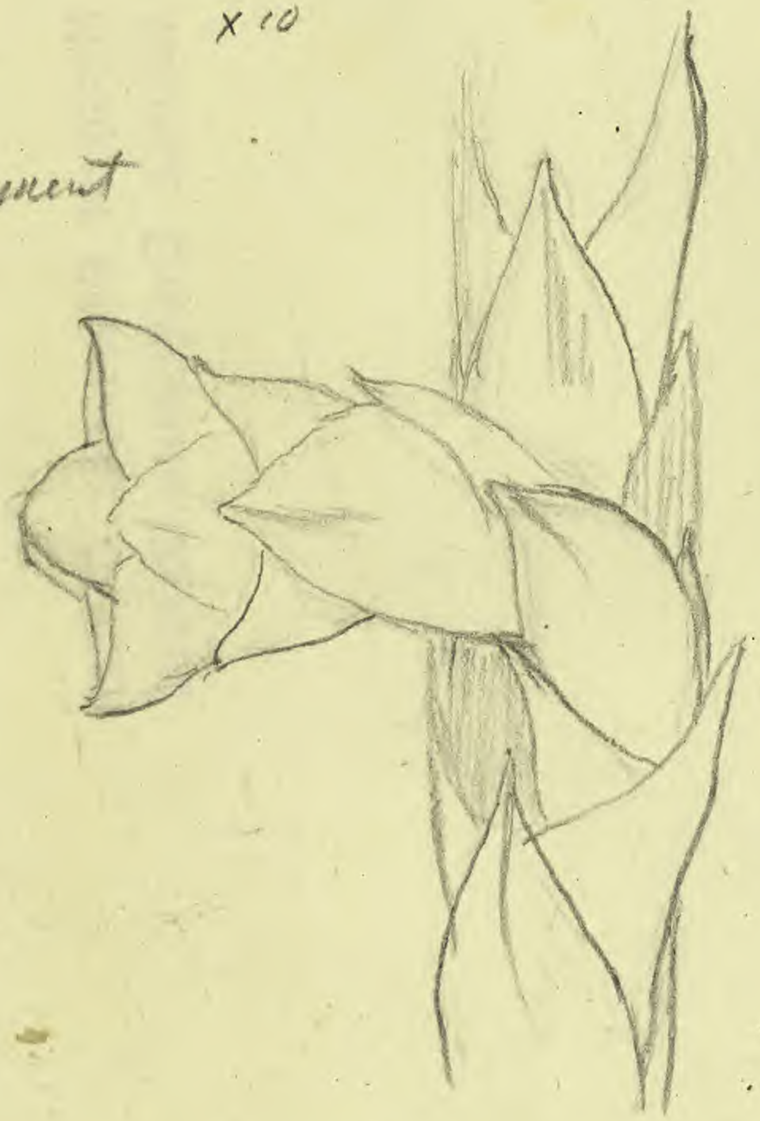
Juniperus procumbens

Dec 30. 1873

Fort Union, Yellowstone, Hayden

x 10

♀ ament



x 10

young fruit purple

— — Their upper most bracts already purple

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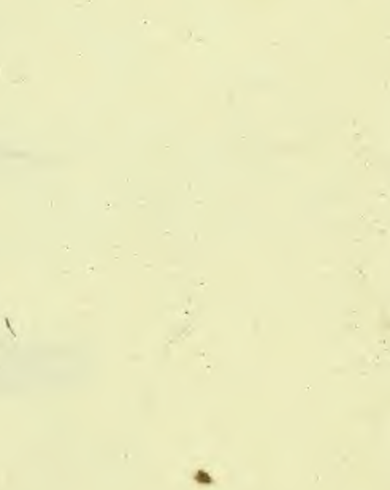

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cm 0 1 2 3 4 5 6 7 8 9 10

S. prorumbens

Dec 26 1873

Yellowstone, Fort Union, & Hayden.

×10

tip of leaf ×60 almost smooth edge

tip of leaf ×60 slightly toothed

berry

×10

×6 smooth edge

young shoot quadrifarious

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ALL THE NEW REMEDIES CONSTANTLY ON HAND

ALEX. LEITCH,
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CHEMIST

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Juncifolius procumbens

Dec 23 1873

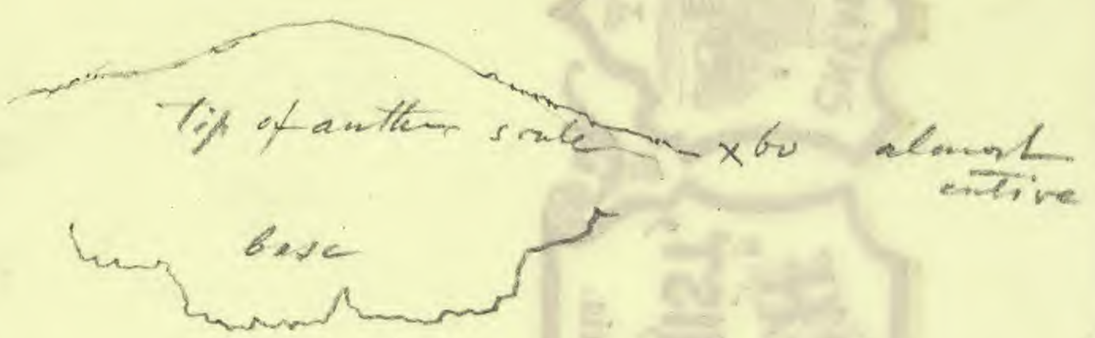
Manitou Is, Lake Michig — Aug 1840

×10

$\frac{9}{415} = 0.022^{mm}$

♂ on very short branchlets, immature

1, rarely 6 anther cells



Lit 9 | 0.022
830
705

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cm
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Juniperus Sabina

Nicolaithal, Wallis Sept 1868

Dec. 22 1873

× 10

β mostly terminal on long branchlets

× 10

tip of scale × 60

base

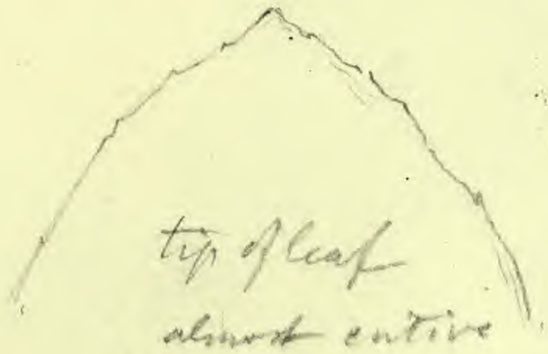
often 6 anthers cells

Pollen

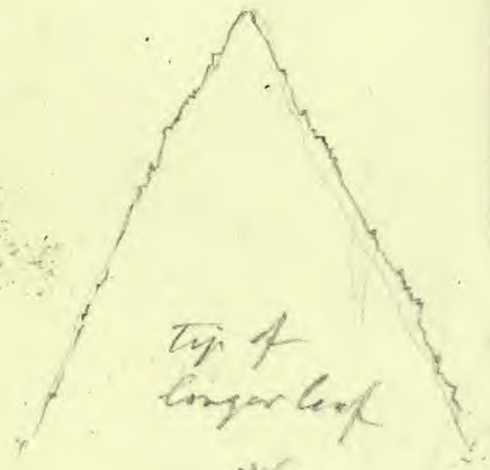
$\frac{9}{615}$ = 0.022 mm

one seed × 10

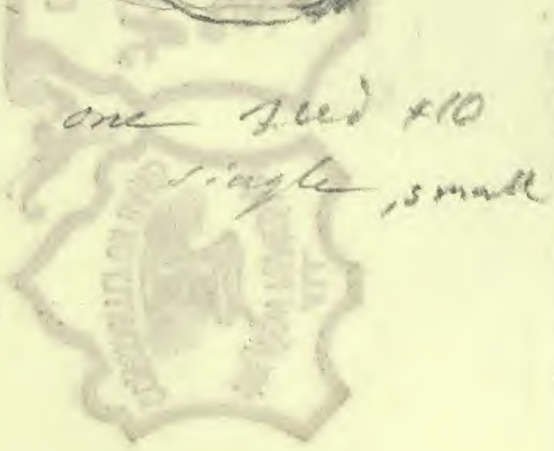
single, small



tip of leaf almost entire × 60



tip of longer leaf × 60



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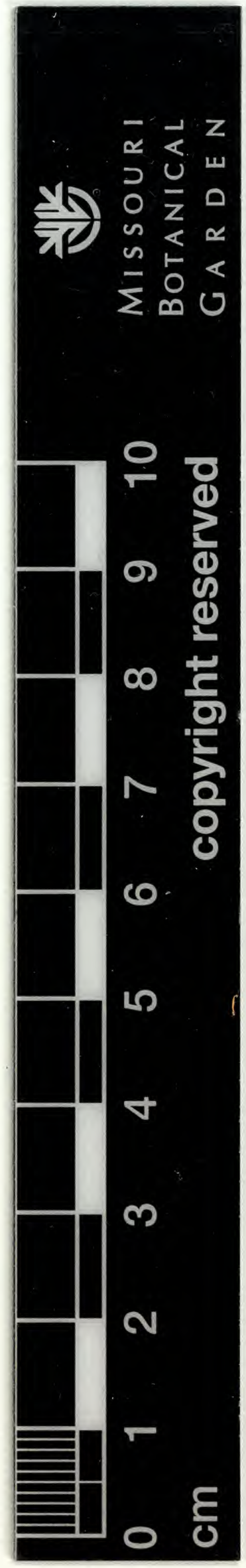
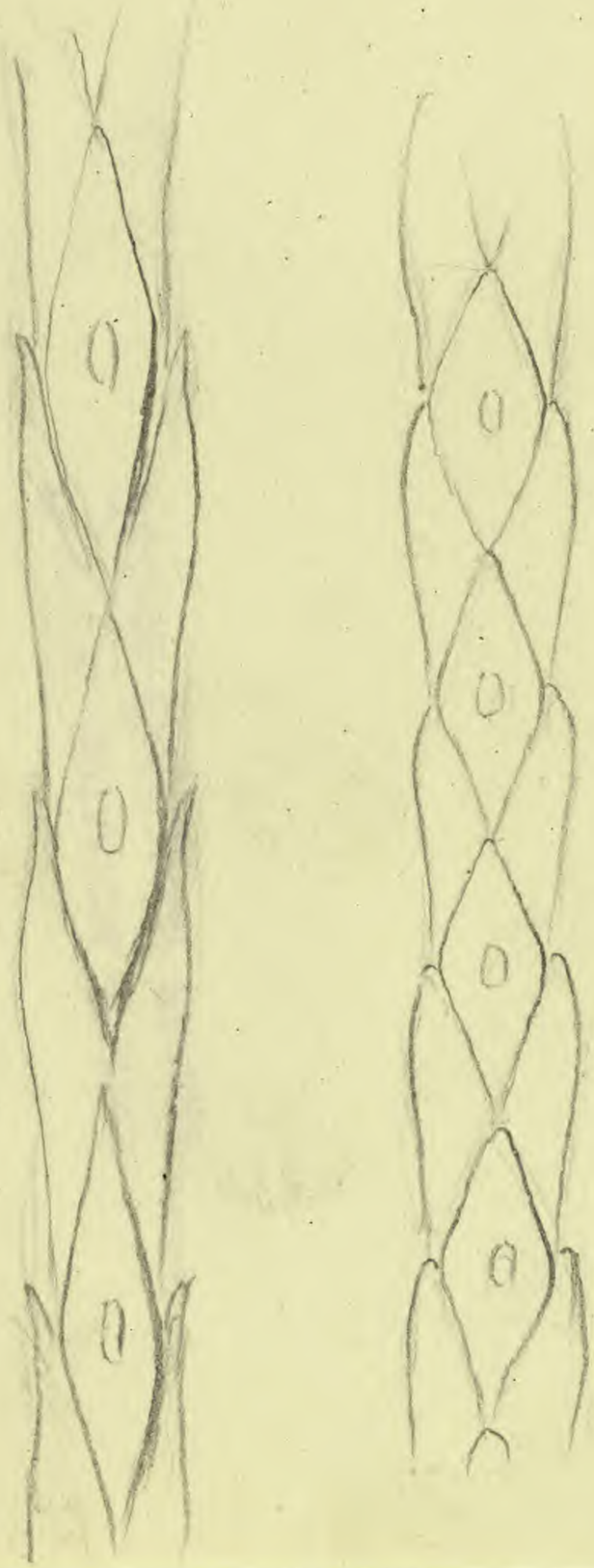


L. salicina

Gen 30 1873

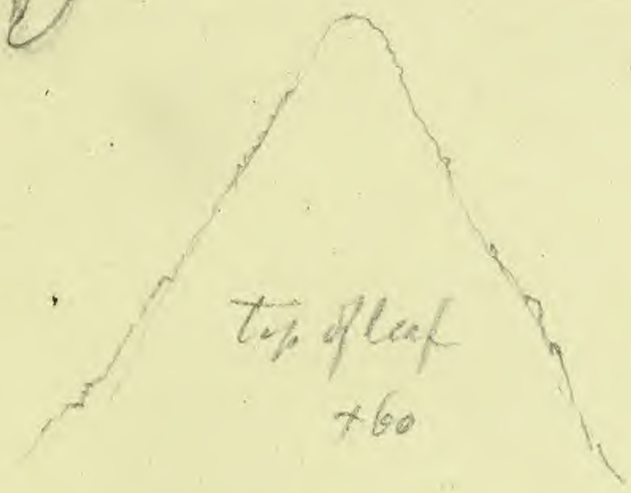
ovata pyramidalis

Hort Bonbon 1824



×10

♀



Top of leaf

×60

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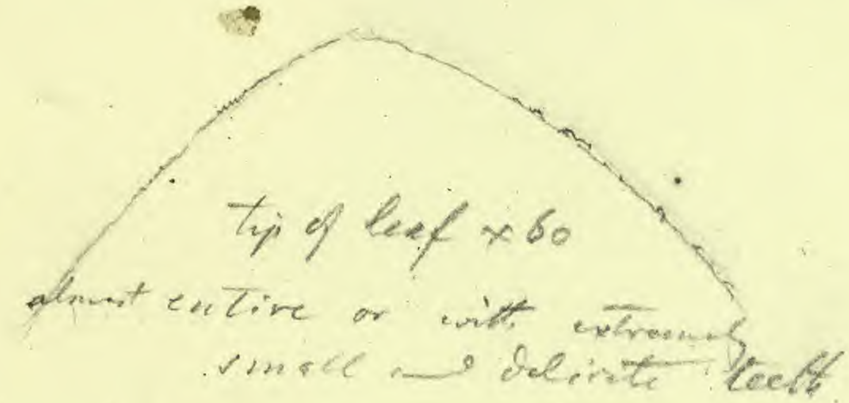
S. Sabina

Dec 24 1873

Taltavull, Lisboa



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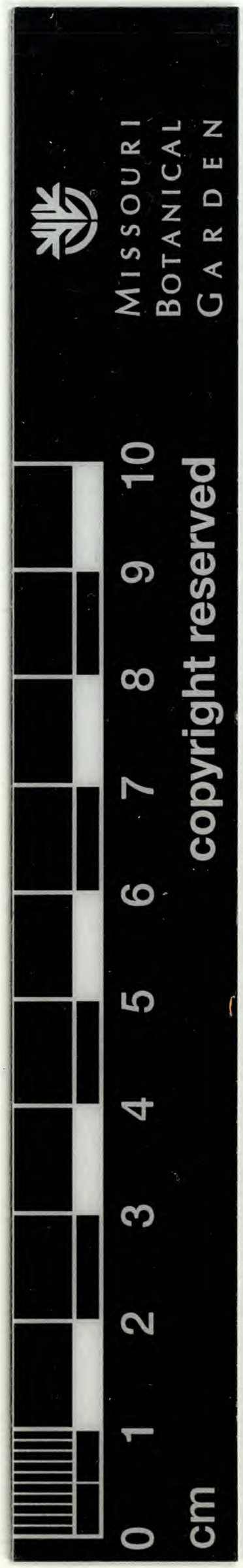
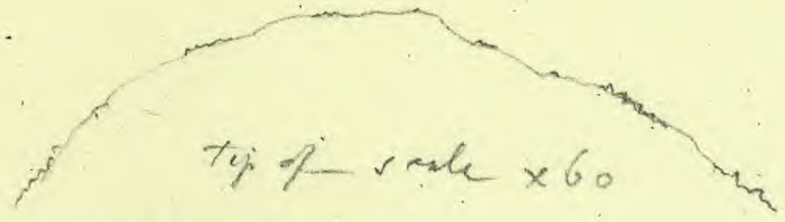


Semiperm Selina Dec 30 1873

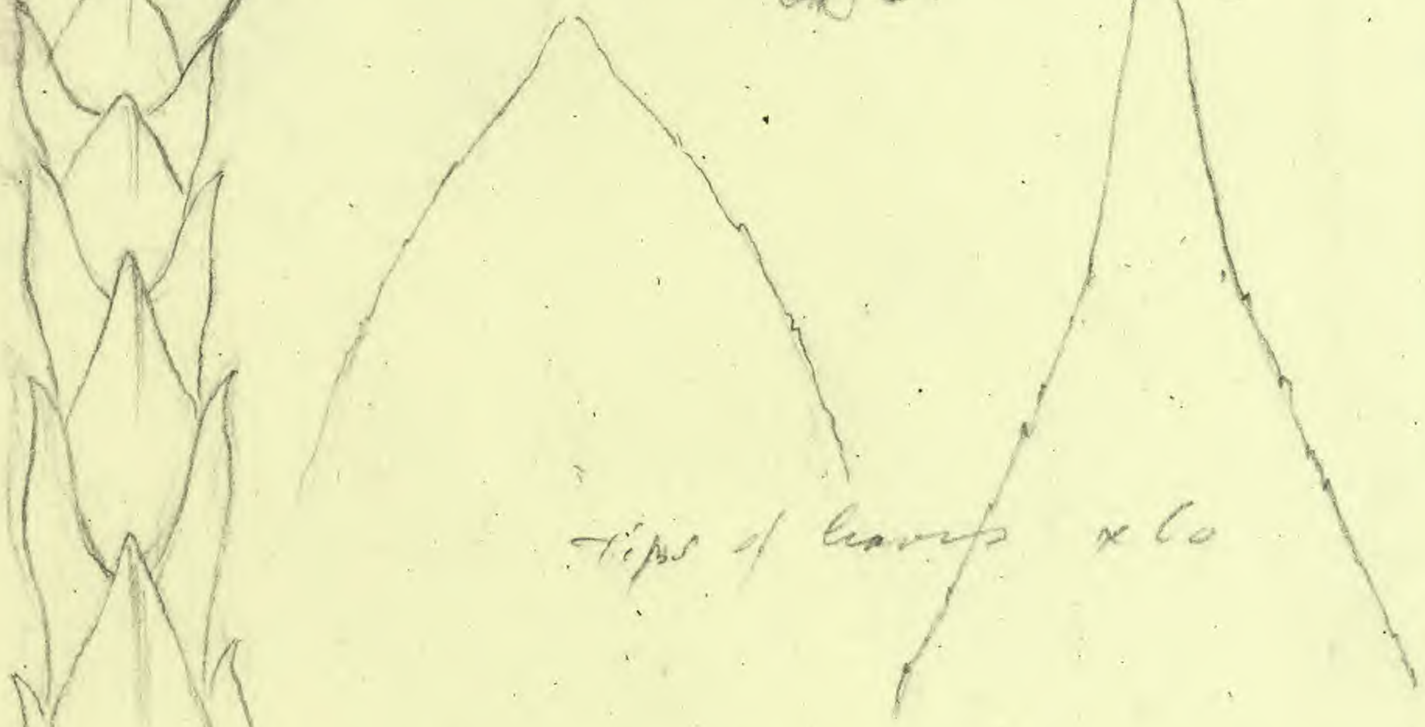
Hort Soc Gdn, Bombay 1826

X 10



Tip of scale x 60

Scale x 10 & anther cells



Tips of leaves x 60

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cm
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J. sabina

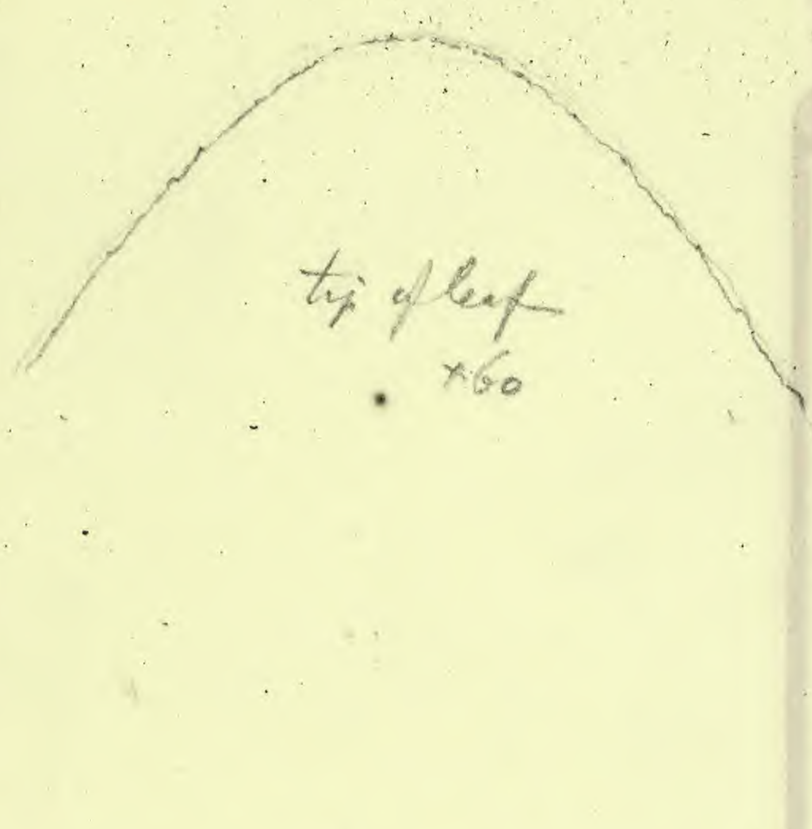
Dec 24 1873

Altai, Ledebour

×10

young branchlet

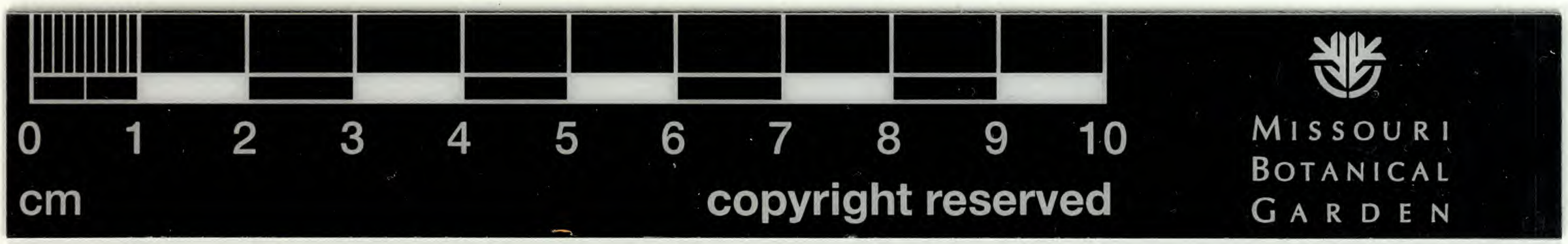
old branch



tip of leaf

×60

Gray Herbarium of Harvard University



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Lonicera Sabina

Jan. 22 1874

E. H. Gray

pronunbens.

Restigouche County, N. Brunswick

J. Fowler

edge of

scale

× 280

Pollen

8.5

415

= 0.020 mm

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cm
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cm 0 1 2 3 4 5 6 7 8 9 10
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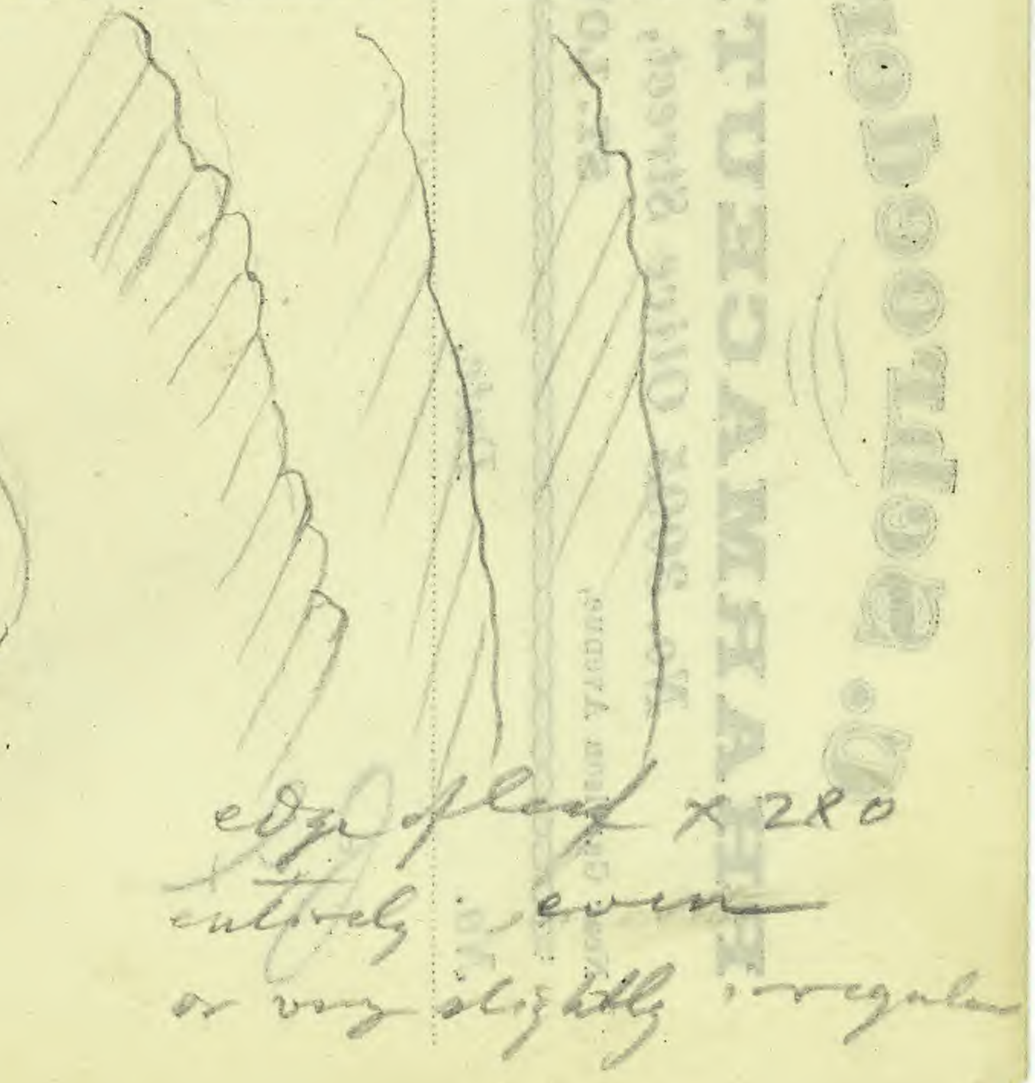
Juniperus Sabina ?
diaphysis y dorsy
June 7 1875

X10

Cascade Mountains 49° Lat
Dr Lyall 1859

Leaves almost entire



edge of leaf x 280
entirely even
or very slightly irregular

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cm
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C. Schroeder,

PHARMACEUTIST,

No. 3005 Olive Street,

Near Garrison Avenue, **ST. LOUIS, MO.**

No. *Date,* *187*

℞

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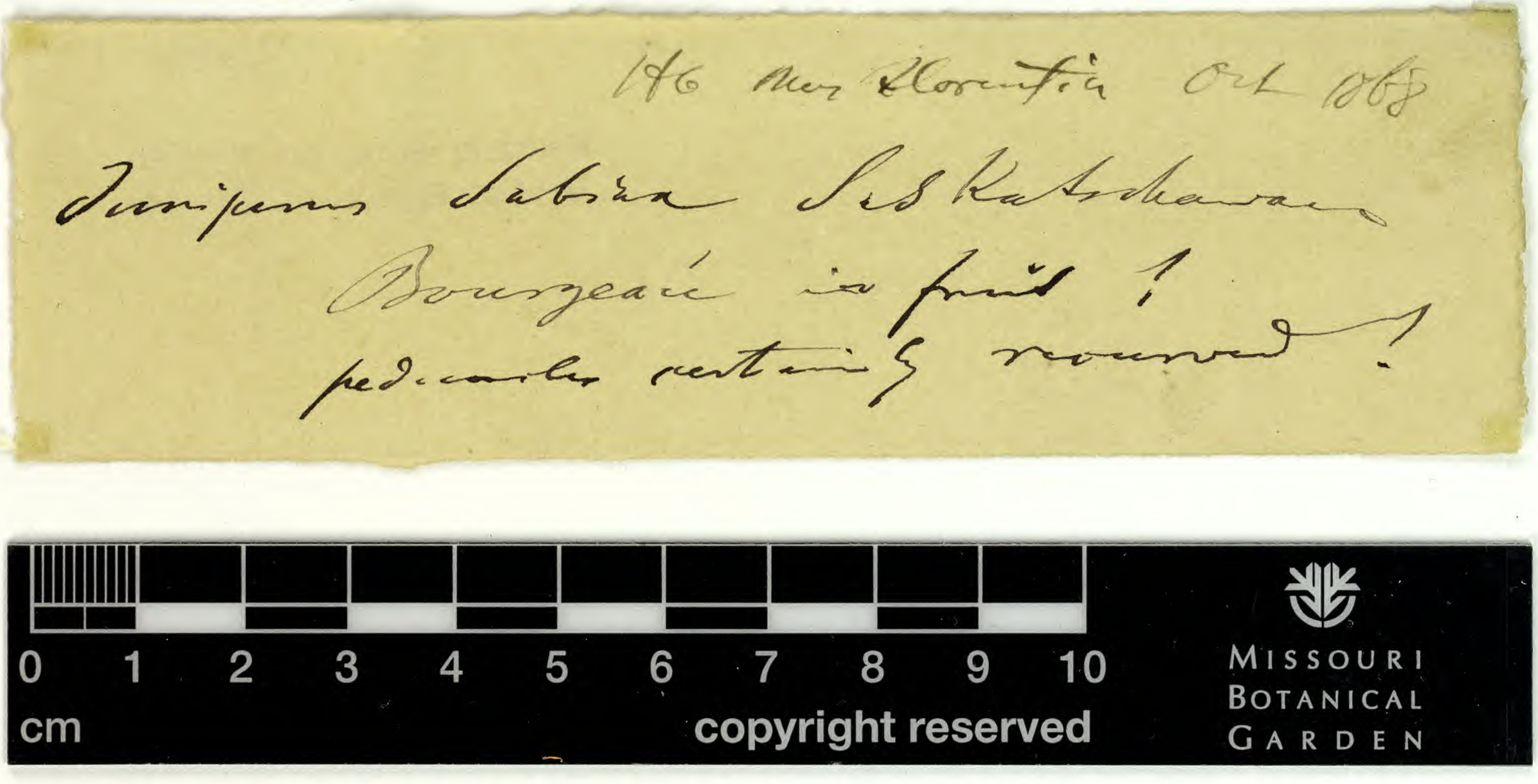
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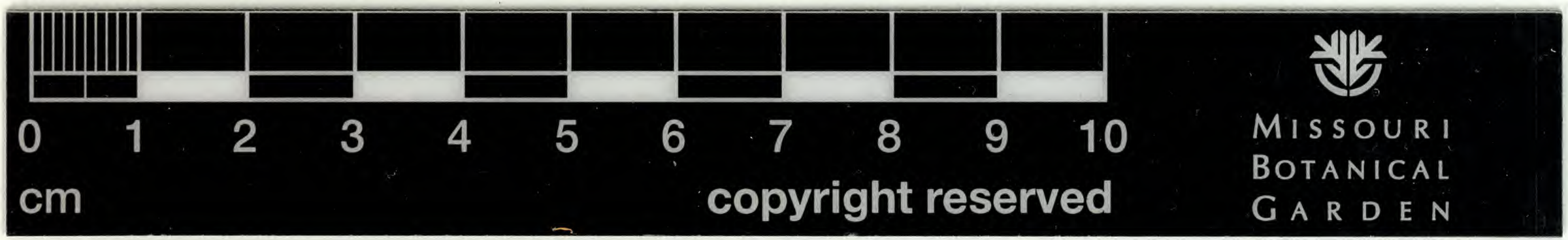

Ans Dec 7 1875
Ans Dec 21 1876
Ans 26

80 Elizabeth Street West,

Detroit, Dec. 6. 1875.

My Dear Dr. Engelmann,

Yours of 1st inst. reached me on the 4th.

I am glad the specimens pleased you.

As to Juniperus Sabina, it is certain that the fruit does not ripen till the second season; but it seems to me that in general fruit is not borne only every alternate year. — I well remember, year after year, in walking through the Juniper, in the early season, the clouds of pollen raised, & the fact of my boots being yellow from its abundance. Of course there is that remarkable case of J. Sabina from Siskawit I., Isle Royale, L. S., in which, though some of the specimens were 42 years old or more, not an single instance appeared in which a single shrub on the entire Island seemed to have ever borne fruit! I sent you specimens of branches & of the stems (showing extraordinary eccentricity) more than a year ago. — (In many cases the stem had been worn away past the vigual centre — I presume from attrition on the rocks).

The following I take from my notes:

J. communis, var. alpina = White-fish Bay, Wis. (Lake Michigan), May 1866 - last year's ft. ripe. — Grand Haven, Mich., April 12th 1871, flower, & last year's fruit. — Orion, Mich., July 1. 1874,

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branches 10–12 ft. long; 9 year's old; no eccentricity in even the most prostrate stems; fruit green. — Fish I.ds, Isle Royale, Mich., L. S., July 19. 1874, fruit not yet ripe, but nearly full size. — Port Austin, Mich. (Lake Huron), May 23. 1875; neither flower nor fruit. — Point Detour, Mich., Sept. 20. 1875, ft. ripe. — Mackinac, Mich., Oct. 18. 1875, fruit. — Cheboygan, Michigan, Oct. 19. 1875, last year's & this year's fruit. — Presq'Isle, Mich., Nov. 3. 1875, last & this yr's fruit. — [I may add that I have often observed the green & ripe fruit on same shoot]. —

J. Virginiana, Grand Haven, Mich., Ap. 12. 1871, Flower. — St. Joseph, Mich., Oct. 7: 1872; Fruit.

J. Sabina. — White-Fish Bay, Wis., May, 1866; Fruit. — Isle Royale, Mich., L. Superior; Aug. 14. 1873. — Siskawit Island, Isle Royale, Mich., July 16. 1874; 42 ann. rings; No fruit on the entire island. — Scoville's Point, Isle Royale, Mich., July 21. 1874, Green fruit. — Drummond's I.d, Mich., Sept. 20. 1875, Fruit ripe & green; ~~b~~branches 10–20 ft. long. — Cheboygan, Mich., Oct. 19. 1875, last years fruit ripe & this year's green. — Presq'Isle, Mich., Nov. 3, & Nov. 14. 1875, fruit ripe, & this year's green. —

Instances of the stem being flattened sideways, of which I sent specimens, are quite common.

Yours very truly

Henry Gillman.

Dr. George Engelmann
St. Louis, Missouri —

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cm
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Rec'd Octo. 28
Ans'd Nov 2d

Cheboygan, Michigan,
Oct. 20. 1875.

My Dear Dr. Engelmann,

Yours of the 29th ult., reached me on the 17th, forwarded to Mackinac. I perceive, now, my mistake as to Selaginella selaginoides. The description is not good, however; ~~the~~ the spikes are even more than 8-ranked frequently, & always more than 4-ranked. Singular to say, I found it here this morning rather abundant; & with frequent rigid, dark green, many-ranked fertile-spikes, as well as the usual form; the latter quite tall — over 4 inches.

I have made a large number of observations as to Juniperus procumbens, & find here (where it grows in sand) that the rings largely expand below & on the sides, contracting above. This is, doubtless, owing to the influence of the Sand. Stocks from 6 — 12 years old show this excentricity in a remarkable degree, while those which are younger, exhibit it but slightly or not at all. The very old stocks are even still more excentric. The following diagrams exhibit the peculiarity. —

An. rings, 6 or less.

An. rings, 12.

An. rings, 28.

Old abraded stocks of over 30 years growth.

These are sections of stocks at the different ages mentioned; the small interior circle designating the first annu-

-al ring, and the position of the section corresponding to that in nature. The singular form 28 years old is not unusual, or rather is frequent; & the abraded forms have here (where the lower side of the stock roots in, and is protected by the Sand) the abrasion on the upper side. Where the soil is rocky, as at Ile Royal, the abrasion is beneath, an example of which I sent You in that very old Stock, — caused by the grating of the stock on the rocks.

I remain here but a short time. I Stopped two days at Mackinac; but found nothing of interest botanically. — I found here among other rare things Pterospora Andromedea growing in pure Sand!! under Coniferæ, not Pine. The root resembles, I find, that of Corallorhiza, but much finer; & I could find no case of its being parasitic, pure sand being around & beneath the root-ball. Though a few thread-like tree rootlets were occasionally found attached. —

Please Use my Detroit direction in writing me.

Yours Truly

Henry Gillman.

I add two other diagrams, sections of J. procumbens. — J. communis, var. alpina L., even in its prostrate limbs & stocks, has this excentricity but very slightly, or not at all. —

Of course you are aware of the variation in the leaf of J. procumbens, appressed-imbricated, or loose; often both forms appearing on same branchlet. In rich or damp soil it is unequally awl-shaped & loose.

Dr. Geo. Englemann,

St. Louis, Missouri,

An. rings, 16.

An. rings, 31.

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cm
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Yours July 4 1876 Suggestions. Alpena, Michigan

find here, on Thunder Bay Island, instances of the Juniperus Sabina var. procumbens, with the drawings enlarged downwards in sand or mould, upwards when on rock, as before observed on Isle Royale, &c. I attribute this last to the branch not being able to root & steady itself on the rock, & the consequent movement & attrition checking the development in that direction. — I find the change from upward to downward in even the same branch, when passing from rock to mould. — I have lately been studying this in other plants of a decumbent or semi-decumbent habit & find some interesting cases. H. Gillman

July 4. 1876. 13342

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GEORGE ENGELMANN PAPERS

My Dear Dr. Engelmann,

I am glad the specimens pleased you. What in my haste I took to be abortive ♀ fls. I find are, as you surmise, in every case galls. I regret I did not preserve some of the more marked instances of the proliferous condition, which I simply contented myself with noting. I, however, find a few cases of it on the specimens I preserved, & herewith, as you desire, send them to you. — Your letter duly reached me (on the 30th), and yesterday the "Oaks" was forwarded me from Detroit. I am exceedingly interested in this, & have given the oaks of our